



Weston Environmental Metrics, Inc.
2417 Bond Street
University Park, Illinois 60466-3182
® 708-534-5200 • Fax 708-534-5211

October 2, 1996

Ms Christy McDowell
Houston EPA Laboratory
10625 Fallstone Road
Houston, Texas 77099

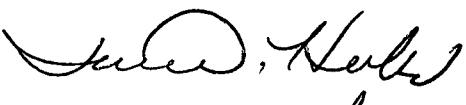
RE. Delta Shipyard
Decificiency Response
RFW Lot 9607G425

Dear Ms McDowell

Enclosed is the revised Analytical Report for the Project and RFW Lot Number listed above. If you have any questions, please contact me at 708-534-5200

Very truly yours,

Weston Environmental Metrics, Inc

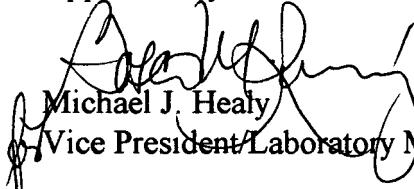

Charles R. Maw

Project Manager

SJ

cc/enc Robert Beck, Roy F Weston, Inc

Approved By


Michael J. Healy
Vice President/Laboratory Manager

964844



The results presented in this report relate only to the analytical testing and conditions of sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.



Response to Delta Shipyard Project 9607G425 - GCMS VOA and BNA

Item A1.

The forms portion of the Envision software has not yet been set up to reflect a medium level on the Form 1. All calculations , however, are being performed correctly and reporting limits and concentrations are correct as they appear on the forms. Samples which were identified in the case narrative as being analyzed medium level were analyzed as such.

Hand-edited Form 1s which reflect the medium level analysis are being resubmitted.

Item A.2.

Data from samples BO-51-1 (001) and BO1-52-1 (002) was re-evaluated for the presence of m/p-xylene. Both m/p-xylene and o-xylene were identified in sample BO-52-1 (002) at J values. These were reported as xylene (total) as per the SOW.

Results for sample BO1-52-1(002) are being resubmitted

Item A.3.

Data from samples BO-51-2 (003), BO2-51-2 (005) and BO2-51-3 (006) were re-evaluated for the presence of 2-butanone. This compound is normally identified on the basis of three masses-- 43, 57, and 72. Data is being resubmitted for these samples, although identification of 2-butanone was made on the basis of only masses 43 and 72 for two of these samples.

Results for samples BO-51-2 (003), BO2-51-2 (005) and BO2-51-3 (006) are being resubmitted.

Item B1.

The data for sample BO1-51-1 was re-evaluated to verify the identification and quantitation of the compound 2-methylnaphthalene. In the original integration, the peaks did split, however, both were integrated. The other cluster of peaks to the right correspond to the compound 1-methylnaphthalene. The compound 1-methylnaphthalene is not in the target compound list, so results for this compound were not reported.

*Data results for the sample BO1-51-1 do not change and remain as originally reported
The evaluated spectrum for 2-methylnaphthalene, showing the original integration, has been included in the resubmitted data package*

Response to Delta Shipyard Project 9607G425 - Pest/PCBs

Item C.1.

Due to the oily nature of several samples, higher sample splits were necessary during GPC cleanup. A 20 fold split was used for various samples rather than the customary 2 fold split (see page 547 in the deliverable package). The net effect was a ten fold "dilution" of the sample. Because no additional dilutions were performed at the instrument level, the dilution factor in the form I's were left as "1".

No resubmittal required

Item C.2.

The flag in question is defined at the bottom of page 150. The "*" was applied to indicate the value was manually calculated and entered.

No resubmittal required

Item C.3.

The peaks in question were re-evaluated pursuant to the Questions/Issues raised for this SDG. The retention time windows are used as the primary form of identification for target analytes. Additionally, analyst judgment is applied to further investigate the soundness of the identification by comparing other aspects of chromatographic response. These are:

1. Retention time shifts in both columns - similar shifts in both columns in relation to standards and surrogates are expected for an actual target analyte. Shifts in opposite direction in both columns are indicative of non-target analyte response
2. Poor peak shape in at least one column
3. Proper integration
4. Significant quantitation difference from both columns
5. Background peaks

The following preliminary identifications were not quantified due to the following reasons:

Sample B01-51-1

Endrin Aldehyde - Item 2 above

Endosulfan sulfate - Item 1 above

G - BHC - Item 1 above. MS/MSD retention times for this compound indicated the presumed peaks were not g-BHC

Sample P06-71-1

Endrin Ketone - Item 5 above
Endrin aldehyde - Item 1 above
G- chlordane - Items 1 and 4 above

Sample P05-71-1

Endrin Aldehyde - Items 4 and 1 above
Endrin Ketone - Items 4 and 5 above

Sample P05-72-1

Aldrin - Item 1 above
Endosulfan Sulfate - Items 1 and 4 above
Endrin Aldehyde - Items 4 and 2 above
Endrin Ketone - Item 5 above

Sample P04-71-1

Aldrin - Item 1 above
g-Chlordane - Items 1, 4 above
a- Chlordane - Items 1, 4 above
DDD - Items 2 and 4 above
Endosulfan Sulfate - Items 1 and 4 above
Endrin Ketone - Items 2 and 5 above
methoxychlor - Item 1

Sample P03-71-1

Aldrin - Items 2 and 4 above

Sample P01-71-1

a-BHC - Item 1 above

No resubmittal required

The DDE concentration for sample PO4-71-1 on the DB-5 column was originally quantitated using peak height and it should have been quantitated using peak area. This correction has been made and all appropriate supporting data has been resubmitted.

**GC/MS Volatiles
Corrected Data**



Weston Environmental Metrics, Inc.

2417 Bond Street

University Park, Illinois 60466-3182

Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

Fax: (708) 534-5211

To USEPA-Delta Shipyard
Roy F. Weston, Incorporated
5599 San Felipe, Suite 700
Houston, TX 77056-2721

Attn Mr. Eric Tate

Date. Tuesday October 1st, 1996

RE: B01-52-1
Project # 00000-000-000-0000
Lab ID 9607G425-002
Sample Date 07/24/96
Date Received 07/26/96
Units ug/Kg

VOLATILES BY GC/MS, HSL LIST

Volatile Compound	Result	Reporting Limit	Flag
Chloromethane	BRL	2200	U
Bromomethane	BRL	2200	U
Vinyl chloride	BRL	2200	U
Chloroethane	BRL	2200	U
Methylene Chloride	BRL	2200	U
Acetone	BRL	2200	U
Carbon Disulfide	BRL	2200	U
1,1-Dichloroethene	BRL	2200	U
1,1-Dichloroethane	BRL	2200	U
1,2-Dichloroethene (total)	BRL	2200	U
Chloroform	BRL	2200	U
1,2-Dichloroethane	BRL	2200	U
2-Butanone	BRL	2200	U
1,1,1-Trichloroethane	BRL	2200	U
Carbon Tetrachloride	BRL	2200	U
Bromodichloromethane	BRL	2200	U
1,2-Dichloropropane	BRL	2200	U



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Date Tuesday October 1st, 1996

RE: B01-52-1
Project # 00000-000-000-0000
Lab ID 9607G425-002
Sample Date 07/24/96
Date Received 07/26/96
Units. ug/Kg

VOLATILES BY GC/MS, HSL LIST

Volatile Compound	Result	Reporting Limit	Flag
cis-1,3-Dichloropropene	BRL	2200	U
Trichloroethene	BRL	2200	U
Dibromochloromethane	BRL	2200	U
1,1,2-Trichloroethane	BRL	2200	U
Benzene	BRL	2200	U
trans-1,3-Dichloropropene	BRL	2200	U
Bromoform	BRL	2200	U
4-Methyl-2-pentanone	BRL	2200	U
2-Hexanone	BRL	2200	U
Tetrachloroethene	BRL	2200	U
1,1,2,2-Tetrachloroethane	BRL	2200	U
Toluene	BRL	2200	U
Chlorobenzene	BRL	2200	U
Ethylbenzene	BRL	2200	U
Styrene	BRL	2200	U
Xylene (total)	1900	2200	J



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Date. Tuesday October 1st, 1996

RE B01-52-1
Project # 00000-000-000-0000
Lab ID: 9607G425-002
Sample Date 07/24/96
Date Received 07/26/96
Units ug/Kg

Tentatively Identified Compounds

10 Volatile Compounds greater than 10% of the nearest internal standard were tentatively identified by mass spectral library search. This is exclusive of any target compounds, surrogates or internal standards

Volatile Compound	Retention Time	Estimated Concentration
SUBST BENZENE C9H12	25.236	8600 J
SUBST BENZENE C9H12	26.370	18000 J
SUBST BENZENE C9H12	27.465	10000 J
SUBST BENZENE C9H10	27.983	16000 J
SUBST BENZENE C10H14	28.202	29000 J
SUBST BENZENE C10H14	28.939	8900 J
SUBST BENZENE C10H14	29.009	12000 J
SUBST BENZENE C10H14	29.209	12000 J
HYDROCARBON C10H12	29.518	24000 J
SUBST BENZENE C11H16	29.837	16000 J



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Houston, TX 77056-2721

Attn Mr. Eric Tate

Date. Tuesday October 1st, 1996

RE. B01-51-2

Project # 00000-000-000-0000

Lab ID. 9607G425-003

Sample Date 07/24/96

Date Received 07/26/96

Units: ug/Kg

VOLATILES BY GC/MS, HSL LIST

Volatile Compound	Result	Reporting Limit	Flag
Chloromethane	BRL	25	U
Bromomethane	BRL	25	U
Vinyl chloride	BRL	25	U
Chloroethane	BRL	25	U
Methylene Chloride	BRL	25	U
Acetone	150	25	
Carbon Disulfide	BRL	25	U
1,1-Dichloroethene	BRL	25	U
1,1-Dichloroethane	BRL	25	U
1,2-Dichloroethene (total)	BRL	25	U
Chloroform	BRL	25	U
1,2-Dichloroethane	BRL	25	U
2-Butanone	29	25	
1,1,1-Trichloroethane	BRL	25	U
Carbon Tetrachloride	BRL	25	U
Bromodichloromethane	BRL	25	U
1,2-Dichloropropane	BRL	25	U



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Attn Mr. Eric Tate

Date Tuesday October 1st, 1996

RE: B01-51-2
Project # 00000-000-000-0000
Lab ID 9607G425-003
Sample Date 07/24/96
Date Received 07/26/96
Units ug/Kg

VOLATILES BY GC/MS, HSL LIST

Volatile Compound	Result	Reporting Limit	Flag
cis-1,3-Dichloropropene	BRL	25	U
Trichloroethene	BRL	25	U
Dibromochloromethane	BRL	25	U
1,1,2-Trichloroethane	BRL	25	U
Benzene	BRL	25	U
trans-1,3-Dichloropropene	BRL	25	U
Bromoform	BRL	25	U
4-Methyl-2-pentanone	BRL	25	U
2-Hexanone	BRL	25	U
Tetrachloroethene	BRL	25	U
1,1,2,2-Tetrachloroethane	BRL	25	U
Toluene	BRL	25	U
Chlorobenzene	BRL	25	U
Ethylbenzene	BRL	25	U
Styrene	BRL	25	U
Xylene (total)	BRL	25	U



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Attn Mr. Eric Tate

Date. Tuesday October 1st, 1996

RE. B01-51-2

Project # 00000-000-000-0000

Lab ID. 9607G425-003

Sample Date: 07/24/96

Date Received. 07/26/96

Units. ug/Kg

Tentatively Identified Compounds

No Volatile Compounds greater than 10% of the nearest internal standard were tentatively identified by mass spectral library search. This is exclusive of any target compounds, surrogates or internal standards.



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Attn Mr. Eric Tate

Date. Tuesday October 1st, 1996

RE. B02-51-2

Project # 00000-000-000-0000

Lab ID 9607G425-005

Sample Date 07/24/96

Date Received: 07/26/96

Units ug/Kg

VOLATILES BY GC/MS, HSL LIST

Volatile Compound	Result	Reporting Limit	Flag
Chloromethane	BRL	20	U
Bromomethane	BRL	20	U
Vinyl chloride	BRL	20	U
Chloroethane	BRL	20	U
Methylene Chloride	BRL	20	U
Acetone	200	20	
Carbon Disulfide	BRL	20	U
1,1-Dichloroethene	BRL	20	U
1,1-Dichloroethane	BRL	20	U
1,2-Dichloroethene (total)	BRL	20	U
Chloroform	BRL	20	U
1,2-Dichloroethane	BRL	20	U
2-Butanone	34	20	
1,1,1-Trichloroethane	BRL	20	U
Carbon Tetrachloride	BRL	20	U
Bromodichloromethane	BRL	20	U
1,2-Dichloropropane	BRL	20	U



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Attn Mr. Eric Tate

Date: Tuesday October 1st, 1996

RE: B02-51-2

Project # 00000-000-000-0000

Lab ID: 9607G425-005

Sample Date: 07/24/96

Date Received 07/26/96

Units: ug/Kg

VOLATILES BY GC/MS, HSL LIST

Volatile Compound	Result	Reporting Limit	Flag
cis-1,3-Dichloropropene	BRL	20	U
Trichloroethene	BRL	20	U
Dibromochloromethane	BRL	20	U
1,1,2-Trichloroethane	BRL	20	U
Benzene	BRL	20	U
trans-1,3-Dichloropropene	BRL	20	U
Bromoform	BRL	20	U
4-Methyl-2-pentanone	BRL	20	U
2-Hexanone	BRL	20	U
Tetrachloroethene	BRL	20	U
1,1,2,2-Tetrachloroethane	BRL	20	U
Toluene	BRL	20	U
Chlorobenzene	BRL	20	U
Ethylbenzene	BRL	20	U
Styrene	BRL	20	U
Xylene (total)	BRL	20	U



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Attn Mr. Eric Tate

Date. Tuesday October 1st, 1996

RE: B02-51-2
Project # 00000-000-000-0000
Lab ID 9607G425-005
Sample Date. 07/24/96
Date Received 07/26/96
Units: ug/Kg

Tentatively Identified Compounds

No Volatile Compounds greater than 10% of the nearest internal standard were tentatively identified by mass spectral library search. This is exclusive of any target compounds, surrogates or internal standards



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Attn Mr. Eric Tate

Date Tuesday October 1st, 1996

RE. B02-51-3

Project # 00000-000-000-0000

Lab ID: 9607G425-006

Sample Date 07/24/96

Date Received 07/26/96

Units ug/Kg

VOLATILES BY GC/MS, HSL LIST

Volatile Compound	Result	Reporting Limit	Flag
Chloromethane	BRL	24	U
Bromomethane	BRL	24	U
Vinyl chloride	BRL	24	U
Chloroethane	BRL	24	U
Methylene Chloride	BRL	24	U
Acetone	120	24	
Carbon Disulfide	BRL	24	U
1,1-Dichloroethene	BRL	24	U
1,1-Dichloroethane	BRL	24	U
1,2-Dichloroethene (total)	BRL	24	U
Chloroform	BRL	24	U
1,2-Dichloroethane	BRL	24	U
2-Butanone	27	24	
1,1,1-Trichloroethane	BRL	24	U
Carbon Tetrachloride	BRL	24	U
Bromodichloromethane	BRL	24	U
1,2-Dichloropropane	BRL	24	U



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Attn: Mr. Eric Tate

Date Tuesday October 1st, 1996

RE B02-51-3

Project # 00000-000-000-0000

Lab ID 9607G425-006

Sample Date 07/24/96

Date Received 07/26/96

Units ug/Kg

VOLATILES BY GC/MS, HSL LIST

Volatile Compound	Result	Reporting Limit	Flag
cis-1,3-Dichloropropene	BRL	24	U
Trichloroethene	BRL	24	U
Dibromochloromethane	BRL	24	U
1,1,2-Trichloroethane	BRL	24	U
Benzene	BRL	24	U
trans-1,3-Dichloropropene	BRL	24	U
Bromoform	BRL	24	U
4-Methyl-2-pentanone	BRL	24	U
2-Hexanone	BRL	24	U
Tetrachloroethene	BRL	24	U
1,1,2,2-Tetrachloroethane	BRL	24	U
Toluene	BRL	24	U
Chlorobenzene	BRL	24	U
Ethylbenzene	BRL	24	U
Styrene	BRL	24	U
Xylene (total)	BRL	24	U



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Attn Mr. Eric Tate

Date: Tuesday October 1st, 1996

RE B02-51-3

Project # 00000-000-000-0000

Lab ID: 9607G425-006

Sample Date: 07/24/96

Date Received: 07/26/96

Units: ug/Kg

Tentatively Identified Compounds

1 Volatile Compounds greater than 10% of the nearest internal standard were tentatively identified by mass spectral library search. This is exclusive of any target compounds, surrogates or internal standards.

Volatile Compound	Retention Time	Estimated Concentration
FURAN, TETRAHYDRO-	13 542	15 NJ

Weston Environmental Metrics, Inc. (Gulf Coast)

VOLATILES BY GC/MS, HSL LIST

Report Date 09/30/96 15 27

RFW Batch Number 9607G425

Client USEPA-Delta Shipyard

Work Order 0000-00-0

Page 1a

Sample Information	Cust ID	B01-51-1	B01-52-1	B01-51-2	B02-51-1	B02-51-2	B02-51-2	
	RFW#	001	002	003	004	005	005 MS	
	Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	D F Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	
Surrogate Recovery	1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	104 104 102	% % %	103 103 104	% % %	99 101 94	% % %	
Chloromethane	2300	U	2200	U	25	U	19	U
Bromomethane	2300	U	2200	U	25	U	19	U
Vinyl chloride	2300	U	2200	U	25	U	19	U
Chloroethane	2300	U	2200	U	25	U	19	U
Methylene Chloride	2300	U	2200	U	25	U	19	U
Acetone	2300	U	2200	U	150	270	200	190
Carbon Disulfide	2300	U	2200	U	25	U	19	U
1,1-Dichloroethene	2300	U	2200	U	25	U	19	U
1,1-Dichloroethane	2300	U	2200	U	25	U	19	U
1,2-Dichloroethene (total)	2300	U	2200	U	25	U	19	U
Chloroform	2300	U	2200	U	25	U	19	U
1,2-Dichloroethane	2300	U	2200	U	25	U	19	U
2-Butanone	2300	U	2200	U	29	55	34	20
1,1,1-Trichloroethane	2300	U	2200	U	25	U	19	U
Carbon Tetrachloride	2300	U	2200	U	25	U	19	U
Bromodichloromethane	2300	U	2200	U	25	U	19	U
1,2-Dichloropropane	2300	U	2200	U	25	U	19	U
cis-1,3-Dichloropropene	2300	U	2200	U	25	U	19	U
Trichloroethene	2300	U	2200	U	25	U	19	U
Dibromochloromethane	2300	U	2200	U	25	U	19	U
1,1,2-Trichloroethane	2300	U	2200	U	25	U	19	U
Benzene	2300	U	2200	U	25	U	19	U
trans-1,3-Dichloropropene	2300	U	2200	U	25	U	19	U
Bromoform	2300	U	2200	U	25	U	19	U
4-Methyl-2-pentanone	2300	U	2200	U	25	U	19	U
2-Hexanone	2300	U	2200	U	25	U	19	U
Tetrachloroethene	2300	U	2200	U	25	U	19	U
1,1,2,2-Tetrachloroethane	2300	U	2200	U	25	U	19	U
Toluene	2300	U	2200	U	25	U	19	U

*= Outside of EPA CLP QC Limits

RFW Batch Number 9607G425 Client USEPA-Delta Shipyard Work Order 0000-00-0 Page 1b
 Cust ID B01-51-1 B01-52-1 B01-51-2 B02-51-1 B02-51-2 B02-51-2
 RFW# 001 002 003 004 005 005 MS
 ChTorobenzene 2300 U 2200 U 25 U 19 U 20 U 121 %
 Ethylbenzene 2300 U 2200 U 25 U 19 U 20 U 20 U
 Styrene 2300 U 2200 U 25 U 19 U 20 U 20 U
 Xylene (total) 2300 U 1900 J 25 U 19 U 20 U 20 U
 *= Outside of EPA CLP QC Limits

Weston Environmental Metrics, Inc. (Gulf Coast)

VOLATILES BY GC/MS, HSL LIST

RFW Batch Number 9607G425

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Work Order 0000-00-0

Report Date 09/30/96 15 27

Page 2a

53

	Cust ID	B02-51-2	B02-51-3	P06-71-1	P05-71-1	P05-72-1	P04-71-1
Sample Information	RFW# Matrix. D F Units	005 MSD SOIL 1 ug/Kg	006 SOIL 1 ug/Kg	007 SOIL 125 120 ug/Kg	008 SOIL 125 120 ug/Kg	009 SOIL 125 120 ug/Kg	010 SOIL 125 120 ug/Kg
Surrogate Recovery	1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	96 % 115 % 76 %	97 % 105 % 79 %	98 % 101 % 98 %	101 % 102 % 104 %	109 % 108 % 110 %	94 % 92 % 94 %
Chloromethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Bromomethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Vinyl chloride	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Chloroethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Methylene Chloride	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Acetone	240	120	2400 U	2400 U	2100 U	1700 U	
Carbon Disulfide	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
1,1-Dichloroethene	117 %	24 U	2400 U	2400 U	2100 U	1700 U	
1,1-Dichloroethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
1,2-Dichloroethene (total)	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Chloroform	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
1,2-Dichloroethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
2-Butanone	40	27	2400 U	2400 U	2100 U	1700 U	
1,1,1-Trichloroethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Carbon Tetrachloride	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Bromodichloromethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
1,2-Dichloropropane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
cis-1,3-Dichloropropene	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Trichloroethene	95 %	24 U	2400 U	2400 U	2100 U	1700 U	
Dibromochloromethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
1,1,2-Trichloroethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Benzene	119 %	24 U	2400 U	2400 U	2100 U	1700 U	
trans-1,3-Dichloropropene	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Bromoform	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
4-Methyl-2-pentanone	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
2-Hexanone	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Tetrachloroethene	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
1,1,2,2-Tetrachloroethane	20 U	24 U	2400 U	2400 U	2100 U	1700 U	
Toluene	128 %	24 U	2400 U	6400	7400	1700 U	

*= Outside of EPA CLP QC Limits

RFW Batch Number	9607G425	Client	USEPA-Delta Shipyard	Work Order	0000-00-0	Page	2b					
Cust ID	B02-51-2	B02-51-3	P06-71-1	P05-71-1	P05-72-1	P04-71-1						
RFW#	005	MSD	006	007	008	009	010					
Chlorobenzene	106	%	24	U	2400	U	2400	U	2100	U	1700	U
Ethylbenzene	20	U	24	U	1300	J	8600		9000		660	J
Styrene	20	U	24	U	2400	U	2400	U	2100	U	1700	U
Xylene (total)	20	U	24	U	13000		56000		59000		2000	

*= Outside of EPA CLP QC Limits

Weston Environmental Metrics, Inc. (Gulf Coast)

VOLATILES BY GC/MS, HSL LIST

RFW Batch Number 9607G425

Client USEPA-Delta Shipyard

Report Date 09/30/96 15 27

Work Order 0000-00-0 Page 3a

	Cust ID	P03-71-1	P01-71-1	P02-71-1	VBLKSH	VBLKSH BS	VBLKVG
Sample Information	RFW# Matrix D F Units	011 SOIL 125 ug/Kg	012 SOIL 125 ug/Kg	013 SOIL 125 ug/Kg	96GVB128-MB1 SOIL 1 ug/Kg	96GVB128-MB1 SOIL 1 ug/Kg	96GVB129-MB1 SOIL 1 ug/Kg
Surrogate Recovery	1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	97 % 98 % 100 %	92 % 94 % 100 %	101 % 97 % 104 %	106 % 104 % 101 %	108 % 108 % 106 %	94 % 95 % 93 %
Chloromethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Bromomethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Vinyl chloride	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Chloroethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Methylene Chloride	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Acetone	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Carbon Disulfide	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	2100 U	2300 U	2100 U	10 U	110 %	10 U	10 U
1,1-Dichloroethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Chloroform	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
2-Butanone	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Bromodichloromethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Trichloroethene	2100 U	2300 U	2100 U	10 U	98 %	10 U	10 U
Dibromochloromethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Benzene	2100 U	2300 U	2100 U	10 U	106 %	10 U	10 U
trans-1,3-Dichloropropene	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Bromoform	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
2-Hexanone	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Tetrachloroethene	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	2100 U	2300 U	2100 U	10 U	10 U	10 U	10 U
Toluene	3800	2300 U	2100 U	10 U	104 %	10 U	10 U

*= Outside of EPA CLP QC Limits

RFW Batch Number	9607G425	Client	USEPA-Delta Shipyard	Work Order	0000-00-0	Page	3b	
Cust ID	P03-71-1	P01-71-1	P02-71-1	VBLKSH	VBLKSH BS	VBLKVG		
RFW#	011	012	013	96GVB128-MB1	96GVB128-MB1	96GVB129-MB1		
Chlorobenzene	2100	U	2300	U	2100	U	104 %	10 U
Ethylbenzene	4500		8700		3500		10 U	10 U
Styrene	2100	U	2300	U	2100	U	10 U	10 U
Xylene (total)	28000		27000		23000		10 U	10 U

*= Outside of EPA CLP QC Limits

Weston Environmental Metrics, Inc. (Gulf Coast)

VOLATILES BY GC/MS, HSL LIST

RFW Batch Number 9607G425

Client USEPA-Delta Shipyard

Report Date 09/30/96 15 27

Work Order 0000-00-0

Page 4a



Cust ID VBLKVG BS

Sample RFW# 96GVB129-MB1
 Information Matrix SOIL
 D F 1
 Units ug/Kg

Surrogate	1,2-Dichloroethane-d4	84	%
Recovery	Toluene-d8	84	%
	4-Bromofluorobenzene	82	%
		f1	f1
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene Chloride		10	U
Acetone		10	U
Carbon Disulfide		10	U
1,1-Dichloroethene		94	%
1,1-Dichloroethane		10	U
1,2-Dichloroethene (total)		10	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon Tetrachloride		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
cis-1,3-Dichloropropene		10	U
Trichloroethene		84	%
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
Benzene		91	%
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
Tetrachloroethene		10	U
1,1,2,2-Tetrachloroethane		10	U
Toluene		91	%

*= Outside of EPA CLP QC limits.

RFW Batch Number 9607G425

Client USEPA-Delta Shipyard

Work Order 0000-00-0

Page 4b

Cust ID VBLKVG BS

RFW#. 96GVB129-MB1

ChTorobenzene _____ 89 %

Ethylbenzene _____ 10 U

Styrene _____ 10 U

Xylene (total) _____ 10 U

*= Outside of EPA CLP QC Limits

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

B01-52-1

Lab Name WESTON/ENV METRICS, INC Contract 1104-09-001

Lab Code. WESTON Case No SAS No SDG No. 07G425

Matrix (soil/water) SOIL Lab Sample ID 9607G425-002

Sample wt/vol 4.0 5.0 (g/mL) G Lab File ID ZHC02

Level (low/med) LOW Date Received 07/26/96

% Moisture not dec 44 Date Analyzed 07/29/96

GC Column CAP ID 0 53 (mm) *μ*
q130/16 Dilution Factor 125 0

Soil Extract Volume 10,000 (uL) Soil Aliquot Volume 100 (uL)

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)	UG/KG	Q
--------	----------	--	-------	---

74-87-3-----	Chloromethane	2200	U	
74-83-9-----	Bromomethane	2200	U	
75-01-4-----	Vinyl Chloride	2200	U	
75-00-3-----	Chloroethane	2200	U	
75-09-2-----	Methylene Chloride	2200	U	
67-64-1-----	Acetone	2200	U	
75-15-0-----	Carbon Disulfide	2200	U	
75-35-4-----	1,1-Dichloroethene	2200	U	
75-34-3-----	1,1-Dichloroethane	2200	U	
540-59-0-----	1,2-Dichloroethene (Total)	2200	U	
67-66-3-----	Chloroform	2200	U	
107-06-2-----	1,2-Dichloroethane	2200	U	
78-93-3-----	2-Butanone	2200	U	
71-55-6-----	1,1,1-Trichloroethane	2200	U	
56-23-5-----	Carbon Tetrachloride	2200	U	
75-27-4-----	Bromodichloromethane	2200	U	
78-87-5-----	1,2-Dichloropropane	2200	U	
10061-01-5-----	cis-1,3-Dichloropropene	2200	U	
79-01-6-----	Trichloroethene	2200	U	
124-48-1-----	Dibromochloromethane	2200	U	
79-00-5-----	1,1,2-Trichloroethane	2200	U	
71-43-2-----	Benzene	2200	U	
10061-02-6-----	trans-1,3-Dichloropropene	2200	U	
75-25-2-----	Bromoform	2200	U	
108-10-1-----	4-Methyl-2-pentanone	2200	U	
591-78-6-----	2-Hexanone	2200	U	
127-18-4-----	Tetrachloroethene	2200	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	2200	U	
108-88-3-----	Toluene	2200	U	
108-90-7-----	Chlorobenzene	2200	U	
100-41-4-----	Ethylbenzene	2200	U	
100-42-5-----	Styrene	2200	U	
1330-20-7-----	Xylene (Total)	✓ 1900	J	

VOLATILE REPORT CLP OLM01.8 SOILS
 Data file: /chem/gc12.1/960729.b/zhc02.d Client Smp ID. B01-52-1
 Lab Smp Id: 9607G425-002 Inj Date: 29-JUL-1996 14:02
 Operator: MANAGER MS Inst ID: gc12.1
 Smp Info: 9607G425-002 XA729, [AL=0624He], [DC=00]
 Misc Info: GCL#2,125,KMC,100UL SMP+5UL IS, SS
 Comment:
 Method: /chem/gc12.1/960729.b/clp2s.m
 Meth Date: 29-Jul-1996 11:16 petruszj Quant Type: ISTD
 Cal Date: 29-JUL-1996 10:41 Cal File: yb729.d
 A1s bottle: 1
 Dil Factor: 125.000
 Integrator: HP RTE Compound Sublist: 0624He.sub
 Target Version: 3.12
 Concentration Formula: Uf * 1/(Ws * (100-M)/100)

Name	Value	Description	
Uf	5.000	ng unit correction factor	8/10
Ws	5.000	Weight of sample extracted (g)	9/30/96
M	44.500	% Moisture (not decanted)	

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)
		====	==	=====	=====	=====	=====
* 31 Bromochloromethane	127 80	13 396	13 434 (1 000)		19813	50 000	
\$ 35 1,2-Dichloroethane-d4	65 00	14 446	14 466 (1 078)		45769	51 677	93 112(aM)
* 43 1,4-Difluorobenzene	114 00	15 229	15 250 (1 000)		87246	50 000	
\$ 52 Toluene-d8	98 00	18 186	18 194 (0 849)		86188	51 642	93 049(a)
* 61 Chlorobenzene-d5	117 00	21 431	21 416 (1 000)		74200	50 000	
65 m,p-xylene	91 00	22 017	22 002 (1 027)		8226	4 342	977 97(aM)
M 66 Xylene (total)	91 00				16767	8 292	1867 6(a)
67 o-xylene	91 00	22 980	22 963 (1 072)		8541	4 224	951 33(aM)
\$ 70 Bromofluorobenzene	95 00	24 301	24 281 (1 134)		61754	51 795	93 324(a)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

Date : 29-JUL-1996 14:02

Client ID: B01-52-1

Instrument: gc12.1

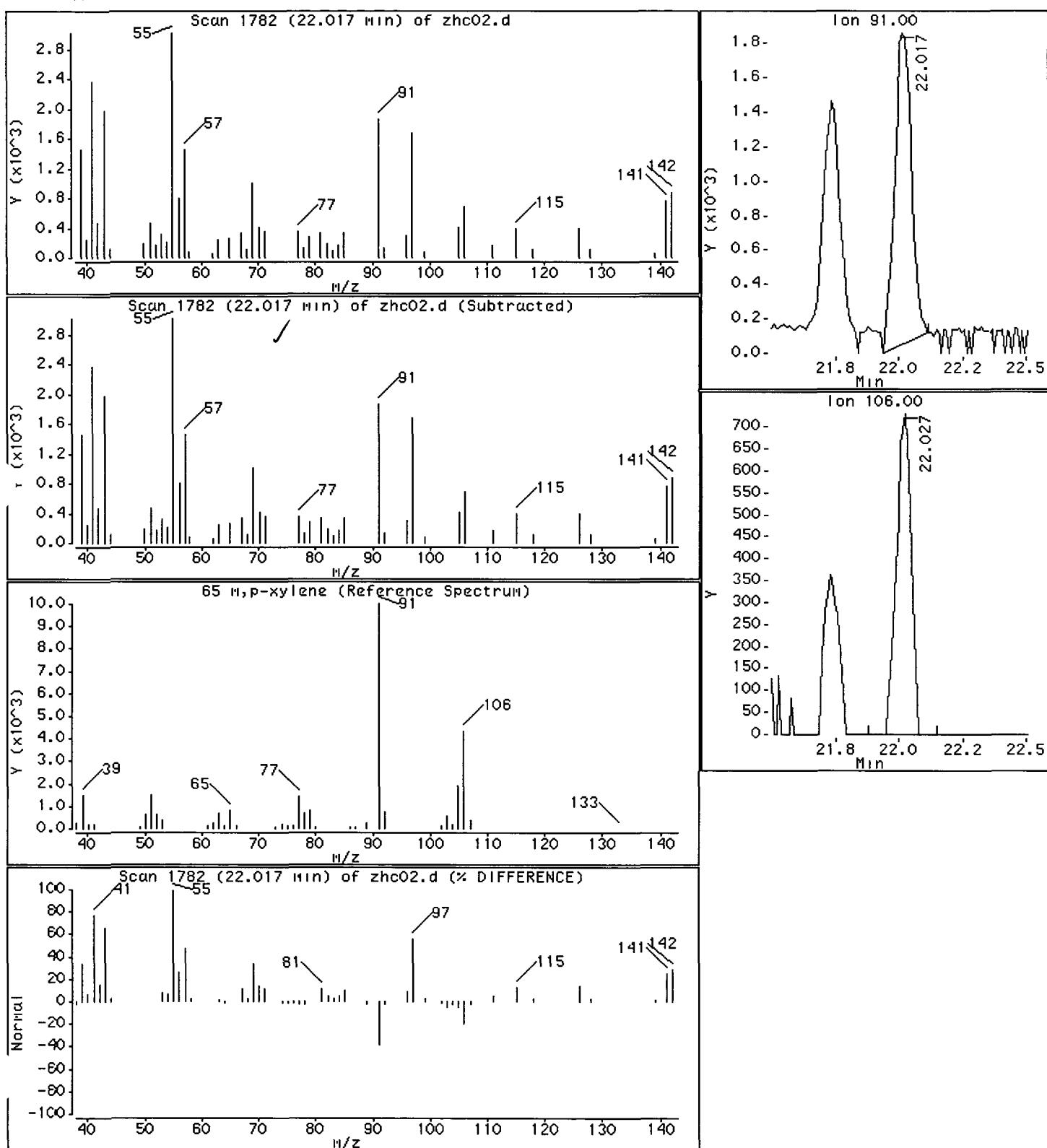
Sample Info: 9607G425-002 XA729,[RL=0624He],[DC=00]

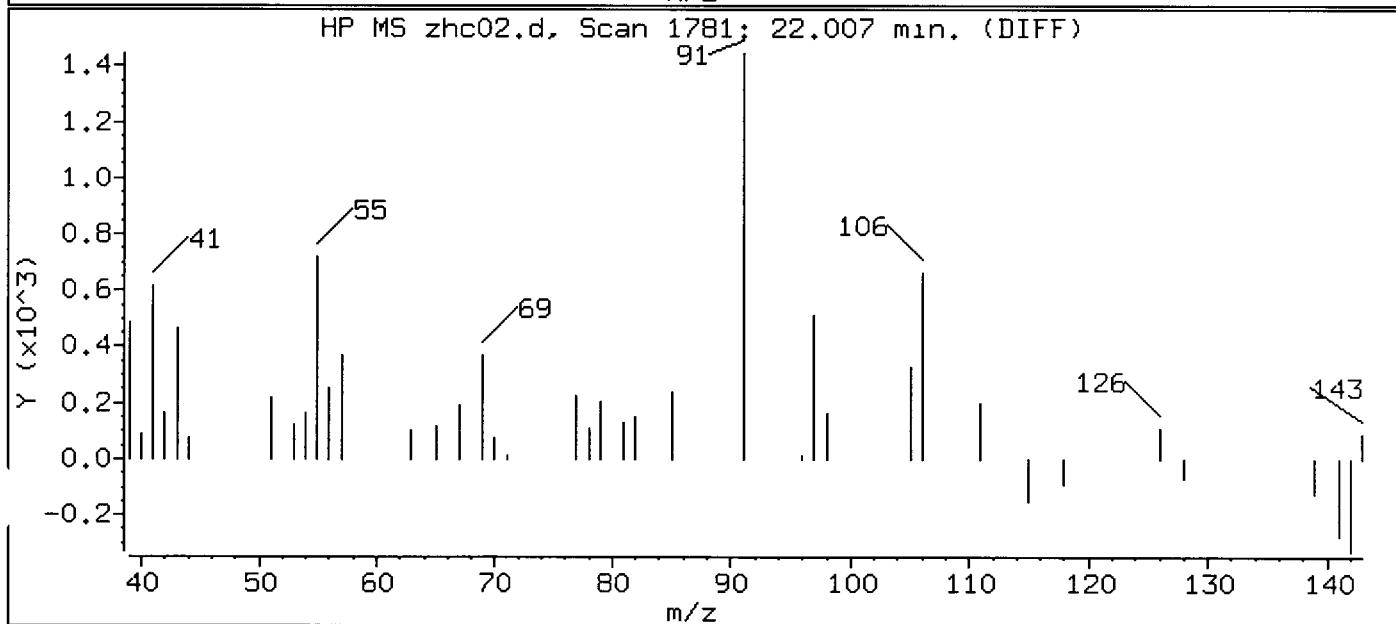
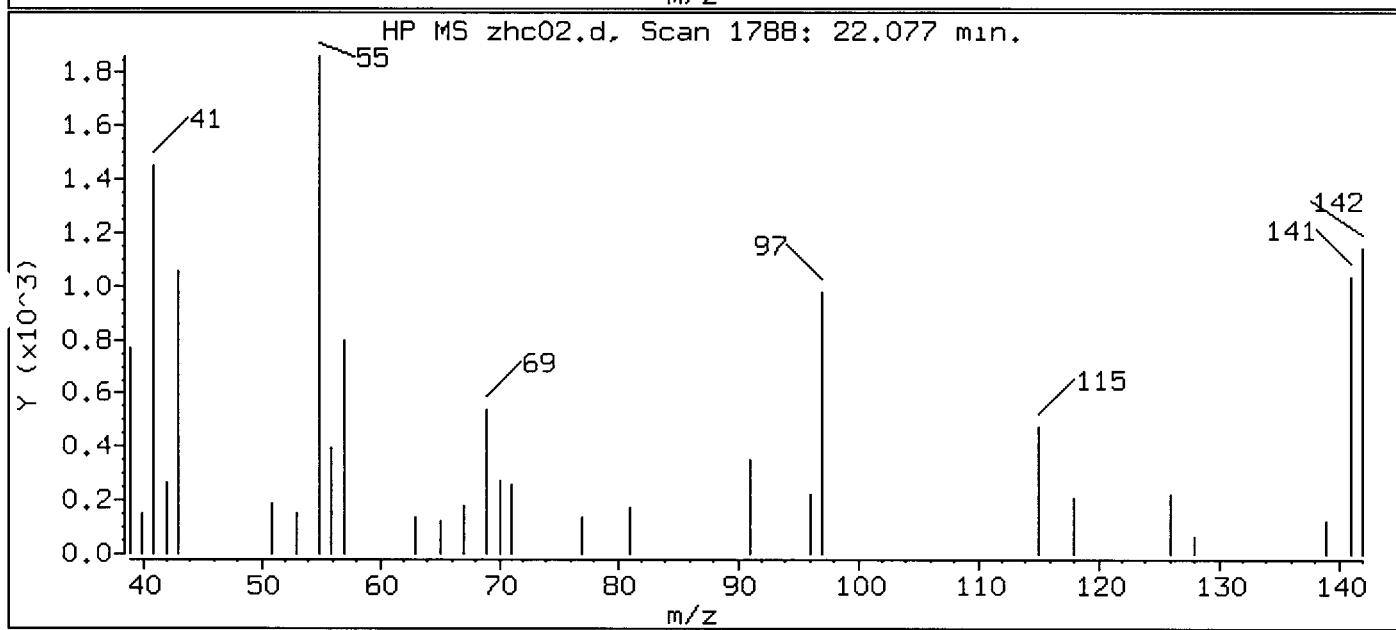
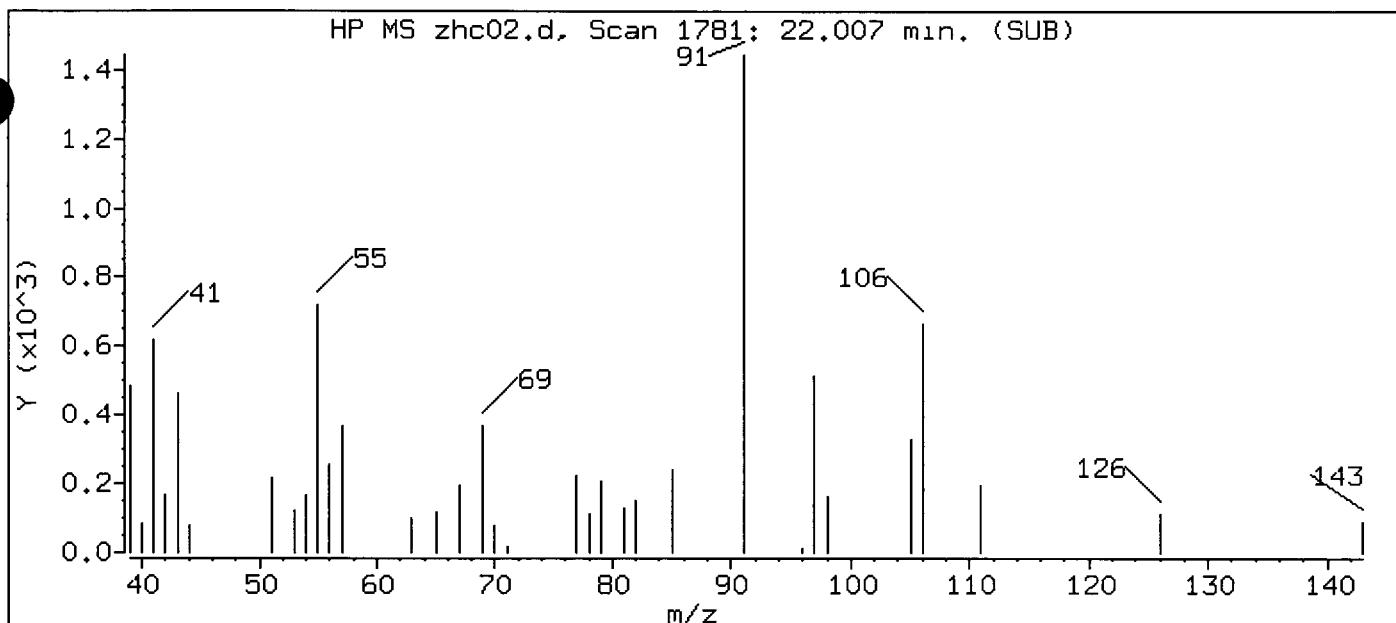
Operator: MANAGER MS

Column phase: Cap

Column diameter: 0.53

65 m,p-xylene





Date : 29-JUL-1996 14:02

Client ID: B01-52-1

Instrument: gc12.i

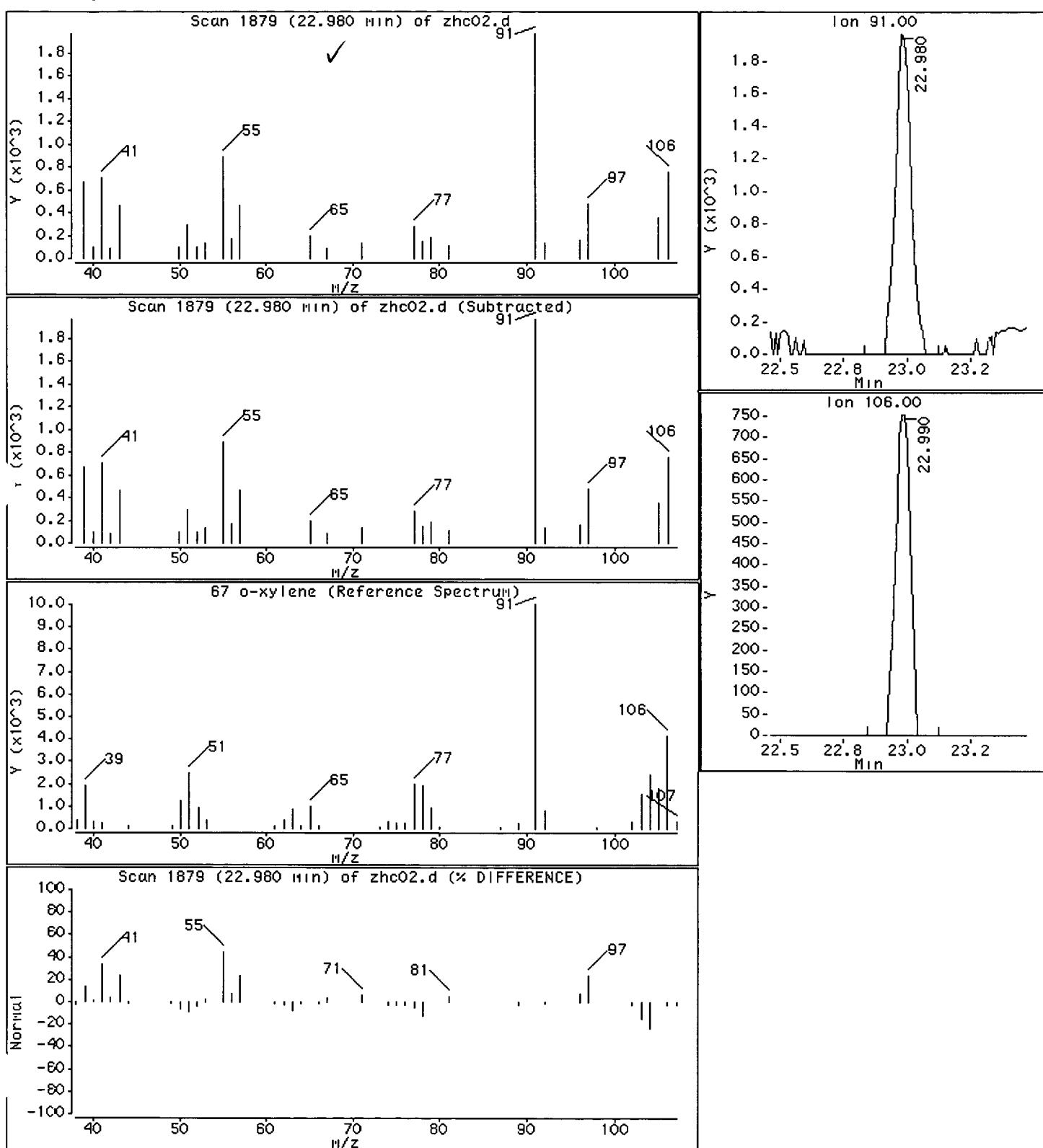
Sample Info: 9607G425-002 XA729,[RL=0624He],[DC=00]

Operator: MANAGER MS

Column phase: Cap

Column diameter: 0.53

67 o-xylene



90C

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

B01-51-2

Lab Name WESTON/ENV METRICS, INC Contract 1104-09-001

Lab Code WESTON Case No SAS No SDG No 07G425

Matrix (soil/water) SOIL Lab Sample ID 9607G425-003

Sample wt/vol 5.0 (g/mL) G Lab File ID ZHC16

Level (low/med) LOW Date Received 07/26/96

% Moisture. not dec 60 Date Analyzed 07/30/96

GC Column CAP ID 0.53 (mm) Dilution Factor 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume _____ (uL)

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
--------	----------	--	---

74-87-3-----	Chloromethane	25	U
74-83-9-----	Bromomethane	25	U
75-01-4-----	Vinyl Chloride	25	U
75-00-3-----	Chloroethane	25	U
75-09-2-----	Methylene Chloride	25	U
67-64-1-----	Acetone	150	
75-15-0-----	Carbon Disulfide	25	U
75-35-4-----	1,1-Dichloroethene	25	U
75-34-3-----	1,1-Dichloroethane	25	U
540-59-0-----	1,2-Dichloroethene (total)	25	U
67-66-3-----	Chloroform	25	U
107-06-2-----	1,2-Dichloroethane	25	U
78-93-3-----	2-Butanone	29	✓
71-55-6-----	1,1,1-Trichloroethane	25	U
56-23-5-----	Carbon Tetrachloride	25	U
75-27-4-----	Bromodichloromethane	25	U
78-87-5-----	1,2-Dichloropropane	25	U
10061-01-5-----	cis-1,3-Dichloropropene	25	U
79-01-6-----	Trichloroethene	25	U
124-48-1-----	Dibromochloromethane	25	U
79-00-5-----	1,1,2-Trichloroethane	25	U
71-43-2-----	Benzene	25	U
10061-02-6-----	trans-1,3-Dichloropropene	25	U
75-25-2-----	Bromoform	25	U
108-10-1-----	4-Methyl-2-pentanone	25	U
591-78-6-----	2-Hexanone	25	U
127-18-4-----	Tetrachloroethene	25	U
79-34-5-----	1,1,2,2-Tetrachloroethane	25	U
108-88-3-----	Toluene	25	U
108-90-7-----	Chlorobenzene	25	U
100-41-4-----	Ethylbenzene	25	U
100-42-5-----	Styrene	25	U
1330-20-7-----	Xylene (total)	25	U

VOLATILE REPORT CLP OLM01.8 SOILS
 Data file: /chem/gc12.1/960730.b/zhc16.d
 Lab Smp Id: 9607G425-003 Client Smp ID: B01-51-2
 Inj Date: 30-JUL-1996 14:08
 Operator: EMN Inst ID: gc12.1
 Smp Info: 9607G425-003 XB730, [AL=0624He], [DC=00]
 Misc Info: GCL#2,1,KMC,5GSMP+5UEIS,SS
 Comment:
 Method: /chem/gc12.1/960730.b/clp2s.m
 Meth Date: 30-Jul-1996 16:47 petruszj Quant Type: ISTD
 Cal Date: 30-JUL-1996 10:37 Cal File: ya730.d
 A1s bottle: 1
 Dil Factor: 1.000
 Integrator: HP RTE Compound Sublist: 0624He.sub
 Target Version: 3.12
 Concentration Formula: Uf * 1/(Ws * (100-M)/100)

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	60.500	% Moisture (not decanted)

9/30/96

Compounds	QUANT SIG		CONCENTRATIONS				ON-COLUMN (ug/L)	FINAL (ug/Kg)
	MASS	RT	EXP RT	REL RT	RESPONSE			
	====	==	=====	=====	=====			
14 Acetone	43 00	10 073	10 067	(0 750)	17969	59 433	150 46(M)	
29 2-Butanone	43 00	13 053	13 038	(0 972)	7741	11 326 ✓	28 674(M)	
* 31 Bromochloromethane	127 80	13 429	13 405	(1 000)	20873	50 000		
\$ 35 1,2-Dichloroethane-d4	65 00	14 469	14 445	(1 077)	49742	49 472	125 25	
* 43 1,4-Difluorobenzene	114 00	15 252	15 228	(1 000)	94561	50 000		
\$ 52 Toluene-d8	98 00	18 202	18 191	(0 849)	99003	50 542	127 96	
* 61 Chlorobenzene-d5	117 00	21 430	21 431	(1 000)	78420	50 000		
\$ 70 Bromofluorobenzene	95 00	24 293	24 295	(1 134)	62265	47 091	119 22	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/gc12.1/960730.b/zhc16.d

Page 4

Date : 30-JUL-1996 14:08

Client ID: B01-51-2

Instrument: gc12.1

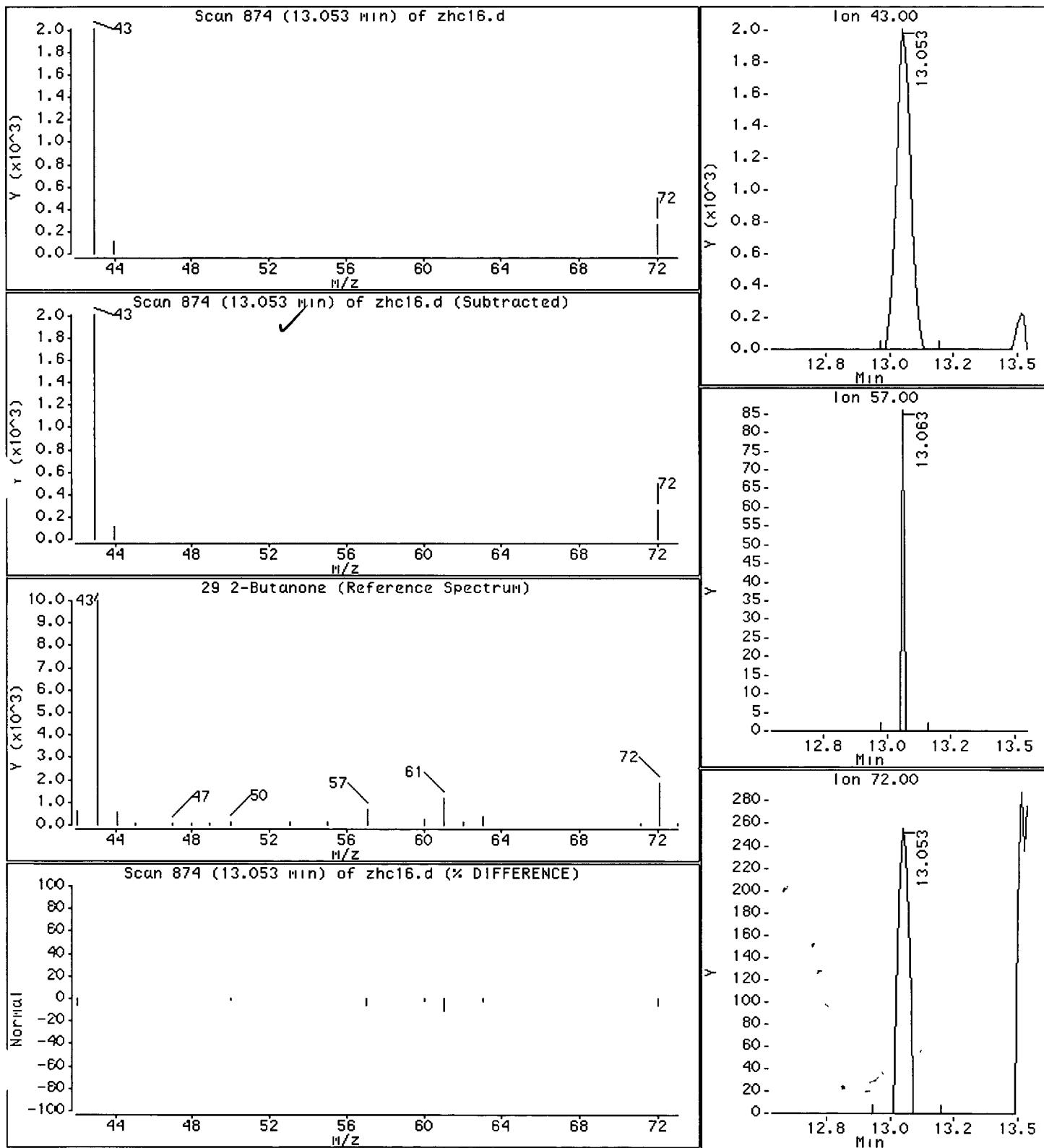
Sample Info: 9607G425-003 XB730,[RL=0624He],[DC=00]

Operator: EMN

Column phase: Cap

Column diameter: 0.53

29 2-Butanone



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

B02-51-2

Lab Name WESTON/ENV METRICS, INC. Contract 1104-09-001

Lab Code WESTON Case No. SAS No SDG No 07G425

Matrix (soil/water) SOIL Lab Sample ID 9607G425-005

Sample wt/vol 5.0 (g/mL) G Lab File ID ZHC05

Level (low/med) LOW Date Received 07/26/96

% Moisture not dec 49 Date Analyzed 07/29/96

GC Column CAP ID 0.53 (mm) Dilution Factor 1.0

Soil Extract Volume _____ (uL) Soil Aliquot Volume _____ (uL)

CAS NO	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)	UG/KG	Q
--------	----------	--	-------	---

74-87-3-----	Chloromethane	20	U	
74-83-9-----	Bromomethane	20	U	
75-01-4-----	Vinyl Chloride	20	U	
75-00-3-----	Chloroethane	20	U	
75-09-2-----	Methylene Chloride	20	U	
67-64-1-----	Acetone	200		
75-15-0-----	Carbon Disulfide	20	U	
75-35-4-----	1,1-Dichloroethene	20	U	
75-34-3-----	1,1-Dichloroethane	20	U	
540-59-0-----	1,2-Dichloroethene (total)	20	U	
67-66-3-----	Chloroform	20	U	
107-06-2-----	1,2-Dichloroethane	20	U	
78-93-3-----	2-Butanone	✓ 34		
71-55-6-----	1,1,1-Trichloroethane	20	U	
56-23-5-----	Carbon Tetrachloride	20	U	
75-27-4-----	Bromodichloromethane	20	U	
78-87-5-----	1,2-Dichloropropane	20	U	
10061-01-5-----	cis-1,3-Dichloropropene	20	U	
79-01-6-----	Trichloroethene	20	U	
124-48-1-----	Dibromochloromethane	20	U	
79-00-5-----	1,1,2-Trichloroethane	20	U	
71-43-2-----	Benzene	20	U	
10061-02-6-----	trans-1,3-Dichloropropene	20	U	
75-25-2-----	Bromoform	20	U	
108-10-1-----	4-Methyl-2-pentanone	20	U	
591-78-6-----	2-Hexanone	20	U	
127-18-4-----	Tetrachloroethene	20	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	20	U	
108-88-3-----	Toluene	20	U	
108-90-7-----	Chlorobenzene	20	U	
100-41-4-----	Ethylbenzene	20	U	
100-42-5-----	Styrene	20	U	
1330-20-7-----	Xylene (total)	20	U	

VOLATILE REPORT CLP OLM01.8 SOILS
 Data file: /chem/gc12.1/960729.b/zhc05.d
 Lab Smp Id: 9607G425-005 Client Smp ID: B02-51-2
 Inj Date: 29-JUL-1996 16:21
 Operator: MANAGER MS Inst ID: gc12.1
 Smp Info: 9607G425-005 XA729, [AL=0624He], [DC=00]
 Misc Info: GCL#2,1,KMC,5GSMP+5ULIS,SS
 Comment:
 Method: /chem/gc12.1/960729.b/clp2s.m
 Meth Date: 29-Jul-1996 11:16 petruszj Quant Type: ISTD
 Cal Date: 29-JUL-1996 10:41 Cal File: yb729.d
 A1s bottle: 1
 Dil Factor: 1.000
 Integrator: HP RTE Compound Sublist: 0624He.sub
 Target Version: 3.12
 Concentration Formula: Uf * 1/(Ws * (100-M)/100) JH
9/30/96

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	49.400	% Moisture (not decanted)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)
		====	==	=====	=====	=====	=====
14 Acetone	43 00	10 096	10 094	(0 751)	23210	103 74	205 01(M)
29 2-Butanone	43 00	13 070	13 068	(0 972)	8852	17 245 ✓	34 080(M) ✓
* 31 Bromochloromethane	127 80	13 446	13 434	(1 000)	13264	50 000	
\$ 35 1,2-Dichloroethane-d4	65 00	14 476	14 466	(1 077)	30582	51 578	101 93(M)
* 43 1,4-Difluorobenzene	114 00	15 259	15 250	(1 000)	59230	50 000	
\$ 52 Toluene-d8	98 00	18 201	18 194	(0 849)	58031	60 220	119 01(M)
* 61 Chlorobenzene-d5	117 00	21 432	21 416	(1 000)	42843	50 000	
\$ 70 Bromofluorobenzene	95 00	24 295	24 281	(1 134)	30243	43 931	86 820

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/gc12.1/960729.b/zhc05.d

Page 4

Date : 29-JUL-1996 16:21

Client ID: B02-51-2

Instrument: gc12.1

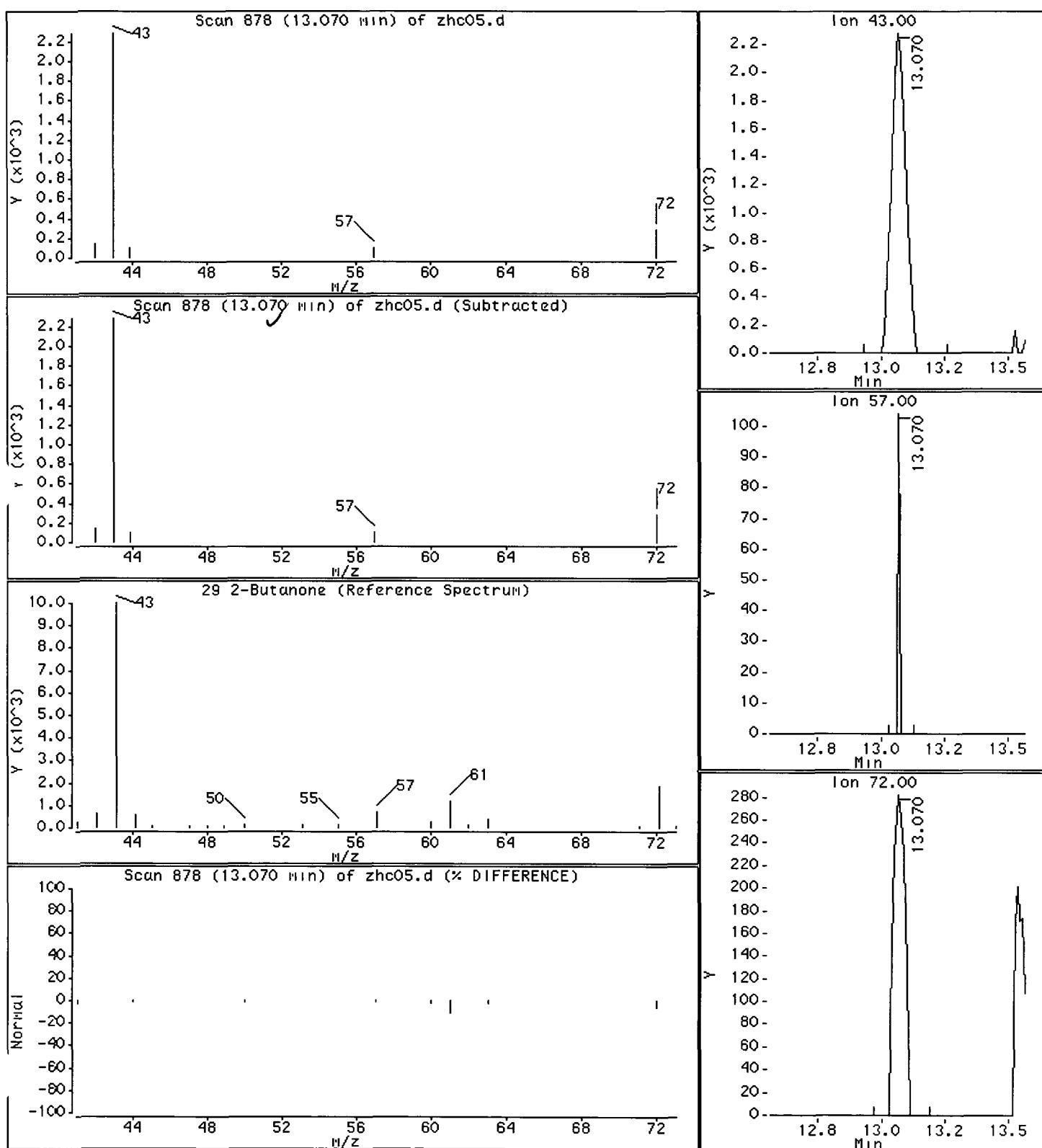
Sample Info: 96070425-005 XA729,[RL=0624He],[DC=00]

Operator: MANAGER MS

Column phase: Cap

Column diameter: 0.53

29 2-Butanone



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

B02-51-3

Lab Name WESTON/ENV. METRICS, INC Contract 1104-09-001

Lab Code WESTON Case No : SAS No. SDG No. 07G425

Matrix (soil/water) SOIL Lab Sample ID 9607G425-006

Sample wt/vol. 5.0 (g/mL) G Lab File ID ZHC18

Level (low/med) LOW Date Received 07/26/96

% Moisture not dec. 59 Date Analyzed 07/30/96

GC Column CAP ID. 0.53 (mm) Dilution Factor. 1.0

Soil Extract Volume. _____ (uL) Soil Aliquot Volume _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
---------	----------	--	---

74-87-3-----	Chloromethane	24	U
74-83-9-----	Bromomethane	24	U
75-01-4-----	Vinyl Chloride	24	U
75-00-3-----	Chloroethane	24	U
75-09-2-----	Methylene Chloride	24	U
67-64-1-----	Acetone	120	
75-15-0-----	Carbon Disulfide	24	U
75-35-4-----	1,1-Dichloroethene	24	U
75-34-3-----	1,1-Dichloroethane	24	U
540-59-0-----	1,2-Dichloroethene (total)	24	U
67-66-3-----	Chloroform	24	U
107-06-2-----	1,2-Dichloroethane	24	U
78-93-3-----	2-Butanone	27	
71-55-6-----	1,1,1-Trichloroethane	24	U
56-23-5-----	Carbon Tetrachloride	24	U
75-27-4-----	Bromodichloromethane	24	U
78-87-5-----	1,2-Dichloropropane	24	U
10061-01-5-----	cis-1,3-Dichloropropene	24	U
79-01-6-----	Trichloroethene	24	U
124-48-1-----	Dibromochloromethane	24	U
79-00-5-----	1,1,2-Trichloroethane	24	U
71-43-2-----	Benzene	24	U
10061-02-6-----	trans-1,3-Dichloropropene	24	U
75-25-2-----	Bromoform	24	U
108-10-1-----	4-Methyl-2-pentanone	24	U
591-78-6-----	2-Hexanone	24	U
127-18-4-----	Tetrachloroethene	24	U
79-34-5-----	1,1,2,2-Tetrachloroethane	24	U
108-88-3-----	Toluene	24	U
108-90-7-----	Chlorobenzene	24	U
100-41-4-----	Ethylbenzene	24	U
100-42-5-----	Styrene	24	U
1330-20-7-----	Xylene (total)	24	U

VOLATILE REPORT CLP OLM01.8 SOILS

Data file : /chem/gc12.i/960730.b/zhc18.d
 Lab Smp Id: 9607G425-006 Client Smp ID: B02-51-3
 Inj Date : 30-JUL-1996 15:51 Inst ID: gc12.i
 Operator : EMN
 Smp Info : 9607G425-006 XB730,[AL=0624He],[DC=00]
 Misc Info : GCL#2,1,KMC,5GSMP+5ULIS,SS
 Comment :
 Method : /chem/gc12.i/960730.b/clp2s.m
 Meth Date : 30-Jul-1996 16:47 petruszj Quant Type: ISTD
 Cal Date : 30-JUL-1996 10:37 Cal File: ya730.d
 A1s bottle: 1
 Dil Factor: 1.000
 Integrator: HP RTE Compound Sublist: 0624He.sub
 Target Version: 3.12
 Concentration Formula: Uf * 1/(Ws * (100-M)/100)

Name	Value	Description	8/30/96
Uf	5.000	ng unit correction factor	
Ws	5.000	Weight of sample extracted (g)	
M	58.600	% Moisture (not decanted)	

Compounds	CONCENTRATIONS						
	QUANT SIG		ON-COLUMN		FINAL		
	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/Kg)
14 Acetone	43 00	10 097	10 067	(0 751)	10178	50 378	121 69(M)
29 2-Butanone	43 00	13 076	13 038	(0 973)	5050	11 057	✓✓✓ 26 709(M)
* 31 Bromochloromethane	127 80	13 443	13 405	(1 000)	13948	50 000	
\$ 35 1,2-Dichloroethane-d4	65 00	14 473	14 445	(1 077)	32637	48 576	117 33(M)
* 43 1,4-Difluorobenzene	114 00	15 255	15 228	(1 000)	59014	50 000	
\$ 52 Toluene-d8	98 00	18 198	18 191	(0 849)	57893	52 425	126 63(MH)
* 61 Chlorobenzene-d5	117 00	21 429	21 431	(1 000)	44210	50 000	
\$ 70 Bromofluorobenzene	95 00	24 296	24 295	(1 134)	29340	39 360	95 073

QC Flag Legend

M - Compound response manually integrated.
 H - Operator selected an alternate compound hit.

Data File: /chem/gc12.1/960730.b/zhc18.d

Page 4

Date : 30-JUL-1996 15:51

Client ID: B02-51-3

Instrument: gc12.1

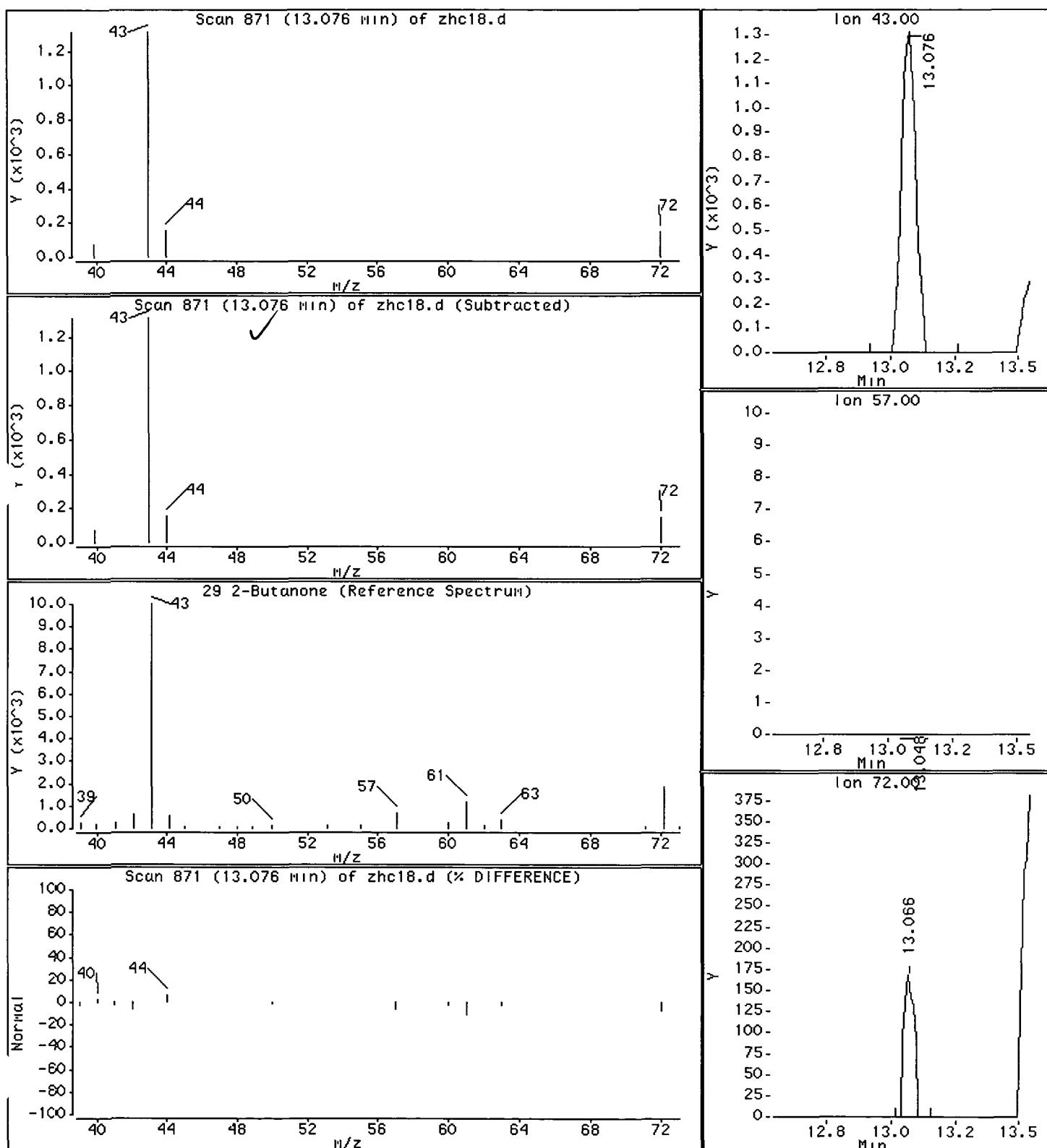
Sample Info: 9607G425-006 XB730,[RL=0624He],[DC=00]

Operator: EMN

Column phase: Cap

Column diameter: 0.53

29 2-Butanone



**GC/MS BNA
Corrected Data**

Date : 15-AUG-1996 04:09

Client ID: B01-51-1

Instrument: gc18.i

Sample Info: 9607G425-001 GHB814, [RL=0625HS], [DC=00]

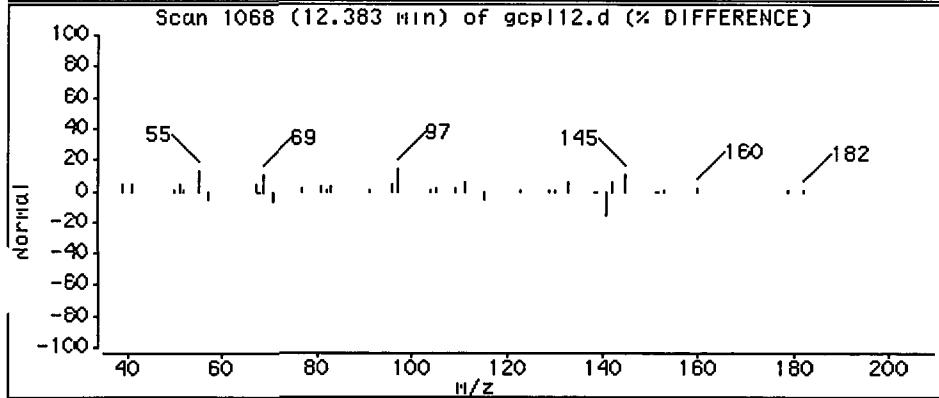
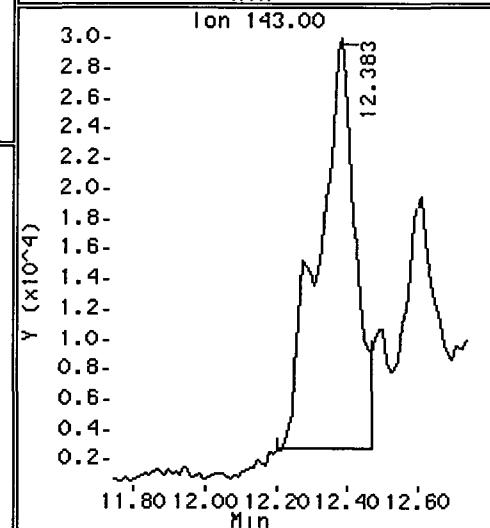
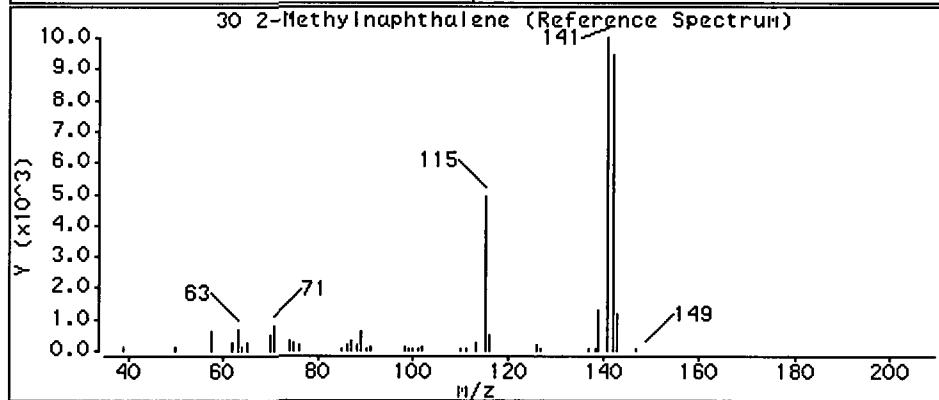
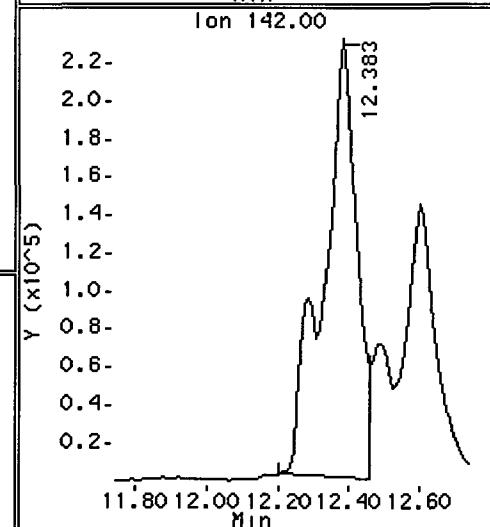
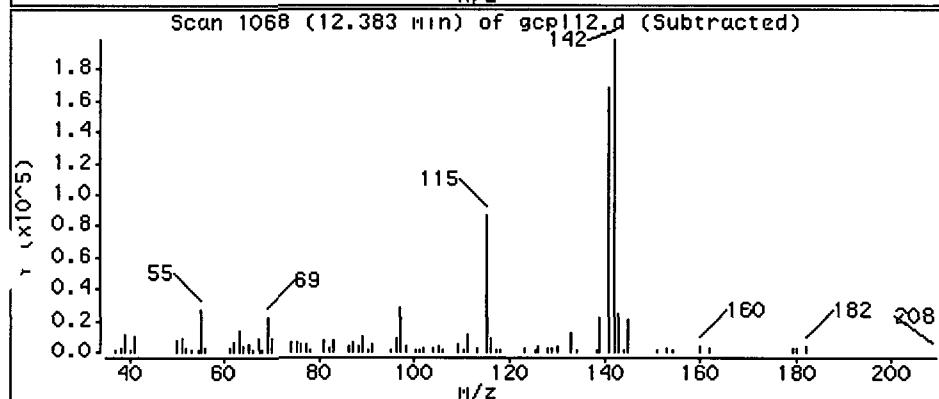
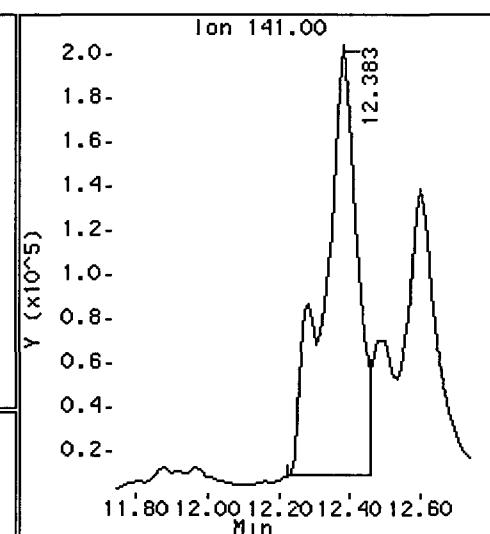
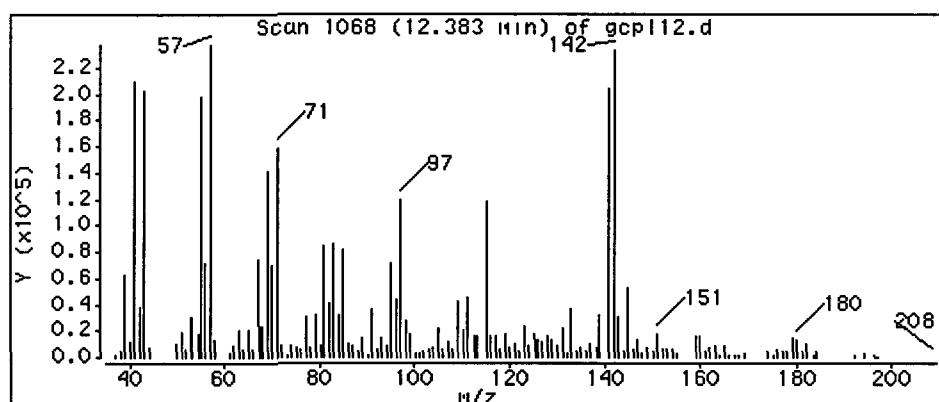
Volume Injected (uL): 2.0

Operator: DSM

Column phase:

Column diameter: 2.00

30 2-Methylnaphthalene



**Pesticide/PCB
Corrected Data**

Weston Environmental Metrics, Inc. (Gulf Coast)

PESTICIDE/PCBs BY GC, CLP LIST

Report Date: 08/21/96 13 09

RFW Batch Number: 9607G425

Client: USEPA-Delta Shipyard

Work Order: 00000-000-000-0000-00-000

Page 4

	Cust ID.	P05-71-1	P05-71-1	P05-72-1	P05-72-1	P04-71-1	P04-71-1
Sample Information	RFW#	008	008	009	009	010	010
	Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D F.	1.00	1.00	1.00	1.00	1.00	1.00
	Units.	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
		Col 2		Col 2		Col 2	Col 2
Surrogate	Tetrachloro-m-xylene	0 D %	0 D %	0 D %	0 D %	0 D %	0 D %
Surrogate	Decachlorobiphenyl	0 D %	0 D %	0 D %	0 D %	0 D %	0 D %
alpha-BHC		f1	f1	f1	f1	f1	f1
beta-BHC		31 U	31 U	28 U	28 U	22 U	22 U
delta-BHC		31 U	31 U	28 U	28 U	22 U	22 U
gamma-BHC (Lindane)		31 U	31 U	28 U	28 U	22 U	22 U
Heptachlor		31 U	31 U	28 U	28 U	22 U	22 U
Aldrin		31 U	31 U	28 U	28 U	22 U	22 U
Heptachlor epoxide		31 U	31 U	28 U	28 U	22 U	22 U
Endosulfan I		31 U	31 U	28 U	28 U	22 U	22 U
Dieldrin		62 U	62 U	56 U	56 U	44 U	44 U
4,4'-DDE		62 U	62 U	56 U	56 U	44 U	44 U
Endrin		62 U	62 U	56 U	56 U	44 U	44 U
Endosulfan II		62 U	62 U	56 U	56 U	44 U	44 U
4,4'-DDD		62 U	62 U	56 U	56 U	44 U	44 U
Endosulfan sulfate		62 U	62 U	56 U	56 U	44 U	44 U
4,4'-DDT		62 U	62 U	56 U	56 U	44 U	44 U
Methoxychlor		310 U	310 U	280 U	280 U	220 U	220 U
Endrin ketone		62 U	62 U	56 U	56 U	44 U	44 U
Endrin aldehyde		62 U	62 U	56 U	56 U	44 U	44 U
alpha-Chlordane		31 U	31 U	28 U	28 U	22 U	22 U
gamma-Chlordane		31 U	31 U	28 U	28 U	22 U	22 U
Toxaphene		3100 U	3100 U	2800 U	2800 U	2200 U	2200 U
Aroclor-1016		620 U	620 U	560 U	560 U	440 U	440 U
Aroclor-1221		1200 U	1200 U	1100 U	1100 U	880 U	880 U
Aroclor-1232		620 U	620 U	560 U	560 U	440 U	440 U
Aroclor-1242		620 U	620 U	560 U	560 U	440 U	440 U
Aroclor-1248		620 U	620 U	560 U	560 U	440 U	440 U
Aroclor-1254		620 U	620 U	560 U	560 U	440 U	440 U
Aroclor-1260		620 U	620 U	560 U	560 U	440 U	440 U

U= Analyzed, not detected J= Present below detection limit B= Present in blank NR= Not requested NS= Not spiked
 %= Percent recovery D= Diluted out I= Interference NA= Not Applicable *= Outside of Advisory limits

1D
PESTICIDE ANALYSIS DATA SHEET

EPA SAMPLE NO.

P04-71-1

Lab Name: Roy F. Weston, Inc. Contract: 00000-000-000-0000-00Lab Code: WESTON Case No.: SAS No.: SDG No.: Matrix: (soil/water) SOIL Lab Sample ID. 9607G425-010Sample wt/vol. 30.7 (g/mL) G Lab File ID: 08199615 44% Moisture 26 decanted: (Y/N) N Date Received: 07/26/96Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/02/96Concentrated Extract Volume: 5000(uL) Date Analyzed: 08/21/96Injection Volume: 1.0(uL) Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/Kg</u>	Q
319-84-6-----	alpha-BHC	22	U
319-85-7-----	beta-BHC	22	U
319-86-8-----	delta-BHC	22	U
58-89-9-----	gamma-BHC (Lindane)	22	U
76-44-8-----	Heptachlor	22	U
309-00-2-----	Aldrin	22	U
1024-57-3-----	Heptachlor epoxide	22	U
959-98-8-----	Endosulfan I	22	U
60-57-1-----	Dieldrin	44	U
72-55-9-----	4,4'-DDE	84.93 10/2/96	P
72-20-8-----	Endrin	44	U
33213-65-9-----	Endosulfan II	44	U
72-54-8-----	4,4'-DDD	44	U
1031-07-8-----	Endosulfan sulfate	44	U
50-29-3-----	4,4'-DDT	44	U
72-43-5-----	Methoxychlor	220	U
53494-70-5-----	Endrin ketone	44	U
7421-93-4-----	Endrin aldehyde	44	U
5103-71-9-----	alpha-Chlordane	22	U
5103-74-2-----	gamma-Chlordane	22	U
8001-35-2-----	Toxaphene	2200	U
12674-11-2-----	Aroclor-1016	440	U
11104-28-2-----	Aroclor-1221	880	U
11141-16-5-----	Aroclor-1232	440	U
53469-21-9-----	Aroclor-1242	440	U
12672-29-6-----	Aroclor-1248	440	U
11097-69-1-----	Aroclor-1254	440	U
11096-82-5-----	Aroclor-1260	440	U

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

P04-71-1

Lab Name Roy F Weston, Inc. Contract: 00000-000-000-0000-00

Lab Code: SAS No.: SDG No.: Case No.: USEPA-Delta Shipyard

Lab Sample ID: 9607G425-010 Date(s) Analyzed: 08/21/96 08/19/96

Instrument ID (1): 15 Instrument ID (2): 29

GC Column(1): DB-5 ID: 0.53 (mm) GC Column(2): RTX-35 ID: 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	TO	CONCENTRATION	%D
4,4'-DDE	1	12.07	12.01	12.15	84 93	50.5
	2	11.60	11.51	11.65	140	67.0

10/2/96

Pa
10/2/96

SAMPLE. 08199615 .44
DATE-TIME INJECTED 08/21/96 05 21.00
DATE-TIME PROCESSED 08/21/96 05:46.29

PAGE NUMBER: 2

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT	HEIGHT CONC NG/UL
040	1146275	245595	V	10.749	1 HEPT EPOXIDE	0.143
041	287851	47956	V	10.901		
042	98205	27584	V	11.070		
043	219490	50085	V	11.197		
044	220603	61428	V	11.316	1 G. CHLORDANE	0.036
045	65438	10304	V	11.463	1 ENDOSULFAN I	0.006
046	1456061	314506	V	11.694	1 A CHLORDANE	0.168
047	1155443	244816	V	11.829		
048	174630	32141	V	12.071	1 4,4'-DDE	<i>Pa</i> 0.019
049	35829	10298	V	12.221	1 DIELDRIN	<i>10/21/96</i> 0.006
050	53894	8290	V	12.329		
051	2153315	400799	V	12.456		
052	76838	31741	V	12.593		
053	3157619	462921	V	12.855	1 ENDRIN	0.289
				12.966	1 ENDOSULFAN II	
054	1996427	411153	V	13.062	1 4,4'-DDD	0.295
055	890213	223885	V	13.206		
056	691469	152798	V	13.458	1 ENDRIN ALDEHYDE	0.156
057	8297903	751355	V	13.680		
058	340378	61797	V	13.995	1 ENDO SULFATE	0.048
059	483629	89274	V	14.171	1 4,4'-DDT	<i>Pa</i> 0.069
060	679214	169005	V	14.299		<i>8/21/96</i>
061	1067673	195808	V	14.441		
062	3596443	557585	V	14.819		
063	164723	46680	V	14.955		
064	414451	94022	V	15.096		
065	421574	74961	V	15.314	1 ENDRIN KETONE	0.043
066	531760	63895	V	15.456		
067	1170193	182477	V	15.689	1 METHOXYCHLOR	0.267
068	681930	87176	V	15.957		
069	434425	73594	V	16.180		
070	249012	51693	V	16.374		
071	351570	48544	V	16.601		
072	175130	51817	V	16.728		
073	1484363	227961	V	16.968		
074	288657	33859	V	17.321		
075	212221	43910	V	17.560		
076	58494	12891	V	17.749		
077	78790	11319	V	17.945		
078	70067	12381	V	18.247		
079	261805	52014	V	18.374		
080	11509	4357	V	18.805		
081	153863	11108	V	18.953		
082	37391	6932	V	19.419		
083	110762	14347	V	19.662		
084	263158	27646	V	19.955		
085	55142	5107	V	20.451	1 DCB	<i>Pa</i> 0.003 DO
086	529514	24969	V	21.170		<i>Pa</i> 8/21/96

SAMPLE EXTRACTION RECORD

Sheet no 1

Extract Date	08/02/96	Extraction Batch No	96GP0810	Analyst CV	Method	SONC
Test	0608	Cleanup Date	08/09/96	Analyst RP	Client	USEPA-Delta Shipyard
LIMS Report Date	10/02/96	Solvent	DCM ACETONE(1 1)	Adsorbent	GPC	5

Sample No.	Client Name Client ID	pH	Initial Surr WT/VOL	Spike Mult	Final VOL	Final VOL	Split Mult	GPC Y/N	% Solids	C/D FACTOR
9607G425-	USEPA-Delta Shipyard									
001 H	B01-51-1	6	30.7	2 0	5 0		2 0	Y	54 30	599 9
001 HS	B01-51-1	6	30.3	2 0	1 0	5 0	2 0	Y	54 30	607 8
001 HT	B01-51-1	6	30.3	2 0	1 0	5 0	2 0	Y	54 30	607 8
002 H	B01-52-1	6	30.2	2 0		5 0	5 0	Y	55.50	1491.6
003 H	B01-51-2	6	30.1	2 0		5.0	2 0	Y	39 50	841 1
004 H	B02-51-1	6	30.9	2 0		5.0	2 0	Y	51 80	624 8
005 H	B02-51-2	6	30.0	2 0		5 0	2 0	Y	50 60	658 8
006 H	B02-51-3	6	30.9	2 0		5 0	2 0	Y	41 40	781 7
007 H	P06-71-1	6	30.0	2.0		5 0	20	Y	50 90	6548 8
008 H	P05-71-1	6	30.2	2 0		5 0	20	Y	53 20	6224 2
009 H	P05-72-1	6	30.7	2 0		5 0	20	Y	58 30	5587 2
010 H	P04-71-1	6	30.7	2 0		5 0	20	Y	73 90	<u>4407.8</u>
011 H	P03-71-1	6	30.8	2 0		5 0	20	Y	58 20	5578 6
012 H	P01-71-1	6	30.6	2 0		5 0	20	Y	54 70	5974 4
013 H	P02-71-1	6	30.7	2.0		5 0	20	Y	59 50	5474 5
96GP0810-MB1 H		30 0	2 0		5 0		2 0	Y	100 00	333 3
96GP0810-MB1 HS		30 0	2 0	1 0	5 0		2 0	Y	100 00	333 3
96GP0810-MB1 HT		30 0	2 0	1 0	5 0		2 0	Y	100 00	333 3

Comments SEE LOG # 2087 p 1709, FL=96GE0034, GPC=96GE0058

Surrogate. 2 0 ML DCB/TCMX (0 2/0 2 PPM) #888-199J

Spike. 1 0 ML PEST CLP MS (0 5/1 0 PPM) #2084-015G

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

70.56